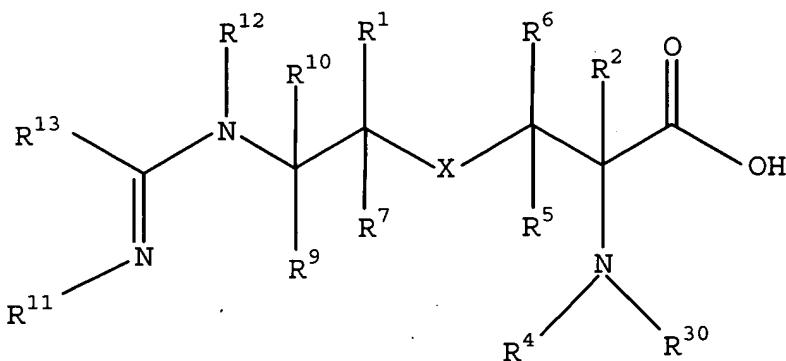


CLAIMS

What is claimed is:

5 1. A method for the preparation of a compound or a pharmaceutically acceptable salt thereof, the compound having a structure corresponding to Formula 21:

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10 or a salt thereof,

wherein:

X is selected from the group consisting of -S-, -S(O)-, and -S(O)₂-;

R² is selected from the group consisting of C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆

alkynyl, C₁-C₅ alkoxy-C₁ alkyl, and C₁-C₅ alkylthio-C₁ alkyl;

15 R³⁰ is selected from the group consisting of -H, -OH, -C(O)-R¹⁷, -C(O)-O-R¹⁸, and -C(O)-S-R¹⁹;

R¹, R⁵, R⁶, and R⁷ independently are selected from the group consisting of -H,

halogen, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, and C₁-C₅ alkoxy-C₁ alkyl;

R⁹ and R¹⁰ independently are selected from the group consisting of -H, C₁-C₆

20 alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, and C₁-C₅ alkoxy-C₁ alkyl;

with respect to R¹¹ and R¹²:

R¹¹ is selected from the group consisting of -H, -OH, -C(O)-O-R²⁴, and

-C(O)-S-R²⁵; and R¹² is selected from the group consisting of -H, -OH,

-C(O)-O-R²⁶, and -C(O)-S-R²⁷; or

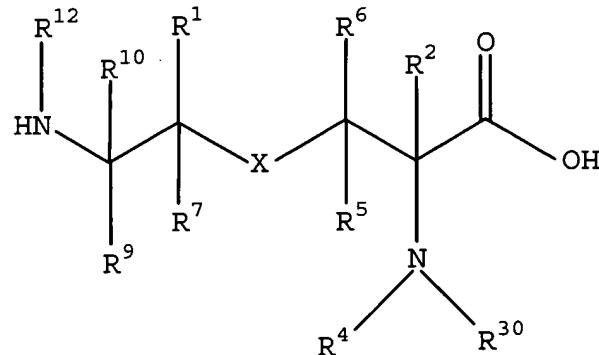
R^{11} is $-O-$, and R^{12} is $-C(O)-$, wherein R^{11} and R^{12} together with the atoms to which they are attached form a ring; or

R^{11} is $-C(O)-$, and R^{12} is $-O-$, wherein R^{11} and R^{12} together with the atoms to which they are attached form a ring; and

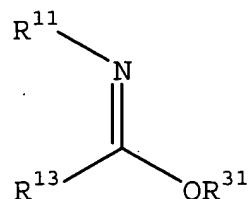
5 R^{13} is C_1 alkyl;

R^{17} , R^{18} , R^{19} , R^{24} , R^{25} , R^{26} , R^{27} , and R^{27a} independently are selected from the group consisting of $-H$ and alkyl, which is optionally substituted by one or more moieties selected from the group consisting of cycloalkyl, heterocyclyl, aryl, and heteroaryl; and when any of R^1 , R^2 , R^4 , R^5 , R^6 , R^7 , R^9 , R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} , R^{16} , R^{17} , R^{18} ,
10 R^{19} , R^{24} , R^{25} , R^{26} , R^{27} , and R^{27a} independently is a moiety selected from the group consisting of alkyl, alkenyl, alkynyl, alkoxy, alkylthio, cycloalkyl, heterocyclyl, aryl, and heteroaryl, then the moiety is optionally substituted by one or more substituent selected from the group consisting of $-OH$, alkoxy, and halogen;

15 wherein the method comprises treating a diamine compound having a structure corresponding to Formula 22:



20 or a pharmaceutically acceptable salt thereof, with an alkyl acetimidate having a structure corresponding to Formula 23:



or a salt thereof, wherein R³¹ is C₁-C₆ alkyl,

to produce the compound corresponding to Formula 21.

2. The method of Claim 1 wherein R¹¹ is selected from the group consisting of -H and

5 -OH.

3. The method of claim 2 wherein R¹¹ is -H.

4. The method of Claim 2 wherein R¹¹ is -OH.

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5. The method of Claim 2 wherein R¹³ is methyl or halomethyl.

6. The method of Claim 5 wherein R¹³ is methyl.

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7. The method of Claim 2 wherein R³¹ is C₁-C₃ alkyl.

8. The method of Claim 7 wherein R³¹ is ethyl.

9. The method of Claim 1 wherein the treating of the diamine compound with the alkyl acetimidate compound is performed in the presence of a base.

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10. The method of Claim 9 wherein the base is selected from the group consisting of a hydrazine, a metal sulfide, a metal hydroxide, a metal alkoxide, an amine, a hydroxylamine, a metal amide complex, and a basic resin.

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11. The method of Claim 10 wherein the base is a basic resin.

12. The method of Claim 11 wherein the basic resin is a polymer-bound diazabicyclo[4.4.0]dec-2-ene.

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13. The method of Claim 10 wherein the base is an amine.

14. The method of Claim 13 wherein the base is selected from the group consisting of 1,5-diazabicyclo[4.3.0]non-5-ene; 1,4-diazabicyclo[2.2.2]octane; and 1,8-diazabicyclo[5.4.0]undec-7-ene.

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